ANNEX A bis*

**SCIENTIFIC DISCIPLINARY AREA: MATHEMATICS AND INFORMATICS**

**RESEARCH PROGRAM NO. 33**

The assessment criteria for the qualifications and the interview will be affixed on 3.7.2017 at 9.00 in Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS), Via Dodecaneso 35, Genova.

The results of the qualification assessment as well as the names of the candidates admitted to the interview will be affixed on 3.7.2017 at 12.00 in Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS), Via Dodecaneso 35, Genova.

The interview will be held on 3.7.2017 at 12.30 in Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS), Via Dodecaneso 35, Genova.

Such a notice is equivalent to notification to all intents and purposes. All the candidates, who have not received notification of their exclusion, must sit for the exam, without prior notice, at the examination centre.

**Scientific coordinator:** Prof. Annalisa BARLA

**NO.1 research fellowship - Duration: 1 year – Annual pre-tax amount: € 19.367,00**

**Title:** Early Detection of Multiple Sclerosis progression driven by clinical scales and Patient Reported Outcome and machine learning.

**Description:** The project is cast in the field of data science applied to data from people with multiple sclerosis. The aim of the analysis is to (1) identify significant variables for the distinction between different stages of the pathology (2) identify predictive models for the course of the disease in the various stages based on questionnaires data that are easily collectable, low-cost and patient-friendly. The statistical techniques used will include sparse regularization methods, deep learning and decision trees, with particular focus on reproducibility and statistical robustness.

**Scientific disciplinary sector:** INF/01 INFORMATICS

**Place:** Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi (DIBRIS)

**Required degree:** Laurea Magistrale della classe LM-21 Ingegneria biomedica

**Subjects of the interview:** Sparse Regularization Methods, HPC Techniques, deep learning learning methods, resampling techniques, ordinal and categorical data analysis

*amended with D.R. n. 2366 dated 30.6.2017*